"GROWING MY WAY"
Tree Consultants
Established 1977
EXCELLENCE in ALL ASPECTS OF TREE MANAGEMENT
FULL INSURANCE PROTECTION
PO Box 35, Newport Beach NSW 2106
Mobile: 0412-221-962
E-mail: kyleahill@optusnet.com.au
ABN 97 965 355 200

Construction Impact & Management Statement & Preliminary Tree Plan of Management

April 2025

Prepared for: Tim McIntryre

12 Rowe Street Freshwater NSW 2096

Prepared by: Kyle A Hill

Registered (Arb Aus #1884) Practising & Consulting Arborist
Post Graduate Certificate in Arboriculture (University of Melbourne)
Diploma of Horticulture–Arboriculture TAFE, Grow SA
Certificate of Horticulture, TAFE
Certificate Advanced Tree Care TAFE
Founder -Growing My Way Tree Services (1977)
Member of International Society of Arboriculture (ISA)
Member of Arboriculture Australia
Victorian Tree Industry Organisation (VTIO)

1. Summary

Tim Mcintyre (as the Property Owner of 12 Rowe Street Freshwater NSW 2096) commissioned the Growing My Way Tree Consultancy (GMW) to prepare an Arboriculture Impact Assessment & Preliminary Site - Specific Tree Plan of Management to be linked to a new development for *Demolition to Existing Dwelling & Proposed New Dwelling.*

The site is Land Zoned as *"R2 Low Density Residential".*

This report discusses seven (7) trees; including one (1) group of trees, four (4) Northern Beaches Council (from herein *NBC)* protected trees are discussed in detail.

All discussed trees are located within the subject site (12 Rowe Street Freshwater).

The subject site shares common a boundary with three (3) adjoining properties and one (1) public road (Rowe Street). Two (2) adjoining properties are the same land zoning as the subject site, one (1) common boundary adjoining property is land zoned as R3 Medium Density Residential. and one (1) public road (Rowe Street). All three (3) common boundary properties are developed to contain dwellings & other infrastructure.

Motor vehicle & pedestrian access to the subject site is only via Rowe Street.

The sole consent authority is the *NBC*.

Information related to the discussed trees was gathered by onsite data collection with cross referencing to:

- *NBC website, online property & environment information website tools.*
- *Site Survey by DONOVAN Associates, dated 19 September 2024.*
- *Proposed Plans, Elevations Sections etc., by ICON HOMES - ACCURATE design & draft, ISSUE G dated 5 March 2025.*
- *NSW SEPP; 10/50 Vegetation Clearing 'Code of Practice'.*
- *NBC "Tree Management Provisions".*
- *NBC Heritage Conservation Area & Land Zoning LEP Maps.*

The aim of this report is:

1. *To confirm the viability of the discussed tree, relating to its individual health, vigour & condition considering any potential impact foreseen by the proposed works.*
2. *Provide a Preliminary Site Specific 'Tree Plan of Management'.*

This document supports (relative to tree management), the proposal as presented with replacement tree/s that at maturity will least replicate the 'loss of green footprint' currently provided by the one (1) NBC protected tree supported to be replaced. (The second supported to be replaced tree is a *Ficus* spp., assessed as not being protected by virtue of its species.)

Kyle A Hill - AQF level 5, Diploma of Horticulture / Arboriculture, (TAFE NSW & other) & AQF level 8, Post Graduate Certificate in Arboriculture, (University of Melbourne) Practicing/Consulting Arborist) with the

assistance of Ao Wang (Master of Protected Area, Governance & Management (University of Tasmania) & Bachelor of Environmental Biotechnology (University of Technology Sydney) has prepared this report based on “Visual Tree Assessment” (VTA) undertaken on Saturday, 05 April 2025.

Table of Contents

2. Introduction

This report contains observations & recommendations intended to assist in the management of seven (7) trees including one (1) group of trees.

Tree #1, Tree #2 & Tree #3 are located within the subject site front yard.

Tree #4, Tree # 5 & Tree #6 are located within the subject site rear yard adjacent to south long boundary.

Trees #7 are a group of protected trees located within the subject site rear yard adjacent to rear boundary.

Note: Trees #7 are assessed as not being impacted upon by the proposed works. Provided the as proposed removal of 'garden edge' installation is completed manually, no other discussion with respect to these trees is required.

We acknowledge & confirm to be familiar with the NBC "Tree Management Provisions", specifically the documents; Warringah Local Environmental Plan 2011, (from herein Warringah LEP), Warringah Development Control Plan 2011 (from herein Warringah 11 DCP)," & the NBC DCP plus (August 2017) SEPP, Vegetation in Non–Rural Areas.

The sole consent authority is NBC.

The site is NOT within an *NBC* designated "*Heritage Conservation Area"*. Neither is the subject site or subject site adjoining properties listed 'Heritage Items'.

Information related to the discussed trees was gathered by onsite data collection with cross referencing to:

- *NBC website, online property & environment information website tools.*
- *Site Survey by DONOVAN Associates, dated 19 September 2024.*
- *Proposed Plans, Elevations Sections etc., by ICON HOMES - ACCURATE design & draft, ISSUE G dated 5 March 2025.*
- *NSW SEPP; 10/50 Vegetation Clearing 'Code of Practice'.*
- *NBC "Tree Management Provisions".*
- *NBC Heritage Conservation Area & Land Zoning LEP Maps.*

This document includes a Preliminary Site Specific "Tree Plan of Management".

3. Methodology

Assessment Methodology for the discussed trees has been from ground level by eye, using *Visual Tree Assessment (VTA Stage 1),* techniques developed by Claus Mattheck. The principles of *VTA* are illustrated & explained in his widely used reference textbook *"The Body Language of Trees (1994)"*.

Assessment includes:

- *Tree's current condition & likely future health*
- *Species tolerance to root disturbance &/or development*
- *Likely present & future risk to persons & property.*
- *Tree's (public & private landscape) amenity value, considering habitat potential.*

No root analysis, soil testing, 'Resistograph'® drilling or aerial canopy inspection was undertaken. See the following Appendices for further information:

- *Appendix A Glossary of Common Arboreal term*
- *Attachment A Tree Protection/Management Prior to & During Construction*

4. Observations

4.1 The Site

This report will be discussed seven (7) trees including one (1) group of trees in total, (4) protected trees will be discussed in detail.

All discussed trees are located within the subject site (12 Rowe Street Freshwater).

The subject site is 470.80m^2 in size (*Site Survey by DONOVAN Associates, dated 19 September 2024*).

The subject site shares common boundaries with two (2) same land zoning common boundary adjoining properties, one (1) common boundary adjoining property zoned as R3 Medium Density Residential and one (1) public road (Rowe Street). all same zoning common boundary adjoining properties are developed to contain dwellings & other infrastructure.

No Geotechnical issues are known to exist relative to tree management.

FIGURE 1: ABOVE ILLUSTRATES THE DISCUSSED TREES RELATIVE TO THE SITE 12 ROWE STREET FRESHWATER NSW 2096. (AERIAL PHOTOGRAPH ON MONDAY 20 JANUARY 2025, MAP DATA COURTESY OF NEARMAP™)

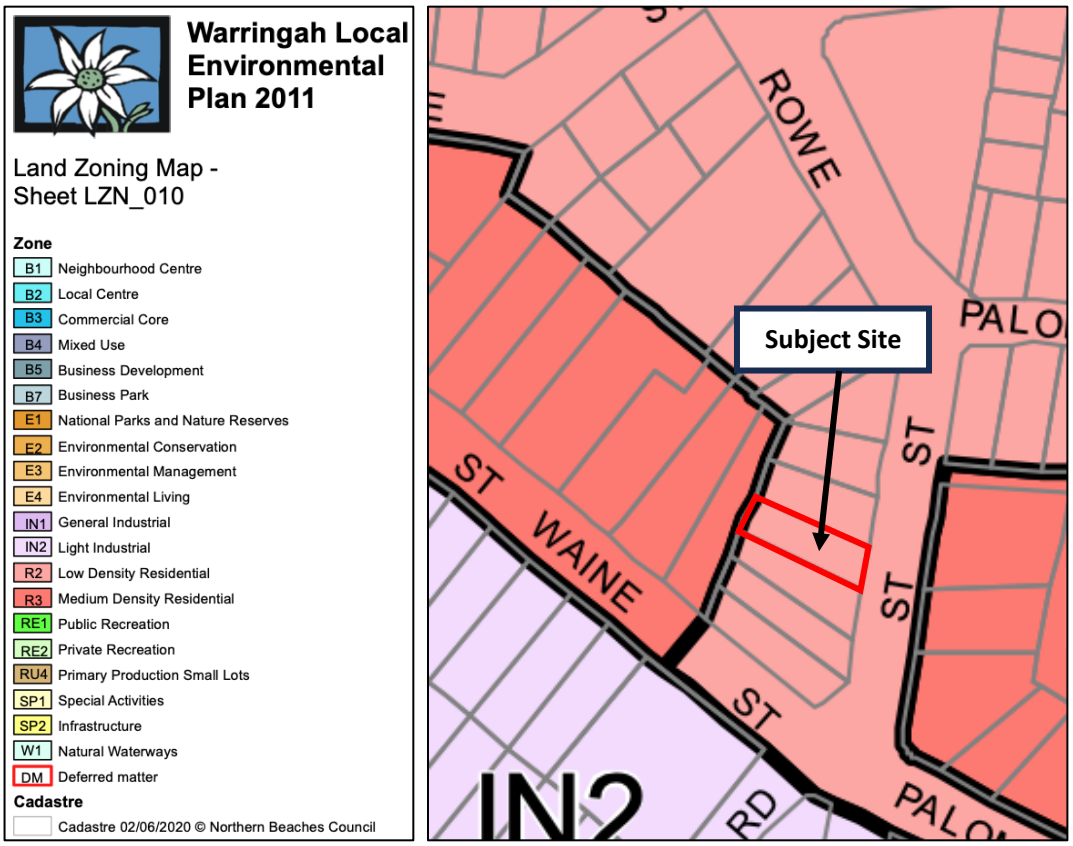


FIGURE 2: CONFIRMS STATUS OF THE SUBJECT SITE RELATIVE R2 LOW DENSITY RESIDENTIAL. (WARRINGAH LOCAL ENVIRONMENTAL PLAN 2011, LAND ZONING MAP - SHEET LZN_ 0010).

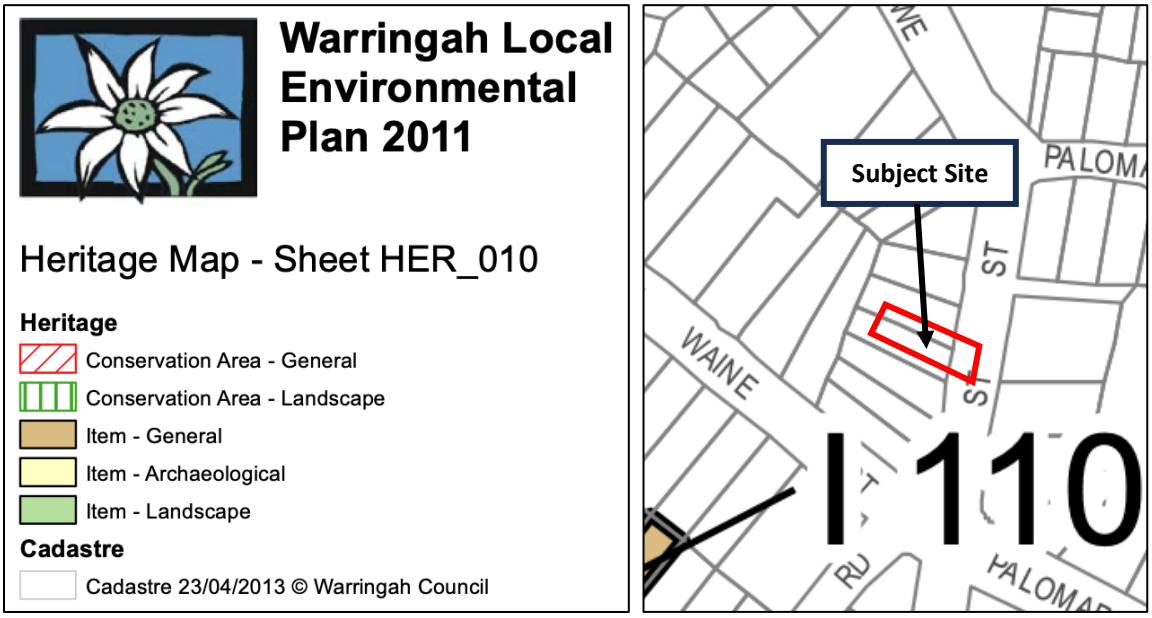


FIGURE 3: CONFIRMS STATUS OF THE SUBJECT SITE RELATIVE TO CADASTRE (WARRINGAH LOCAL ENVIRONMENTAL PLAN 2011, HERITAGE MAP SHEET HER_0010).

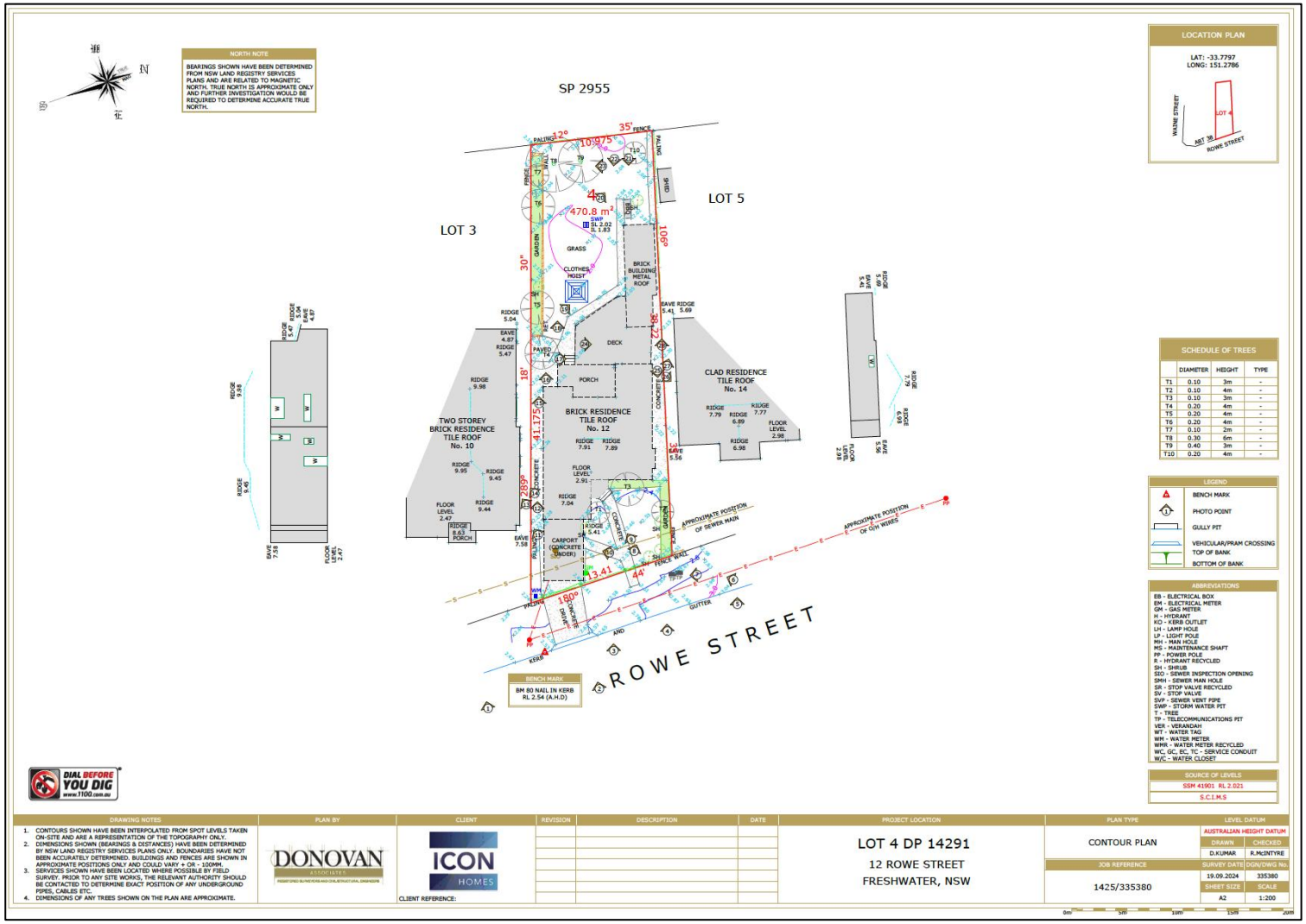


FIGURE 4: THE SITE SURVEY (SITE SURVEY BY DONOVAN ASSOCIATES, DATED 19 SEPTEMBER 2024)

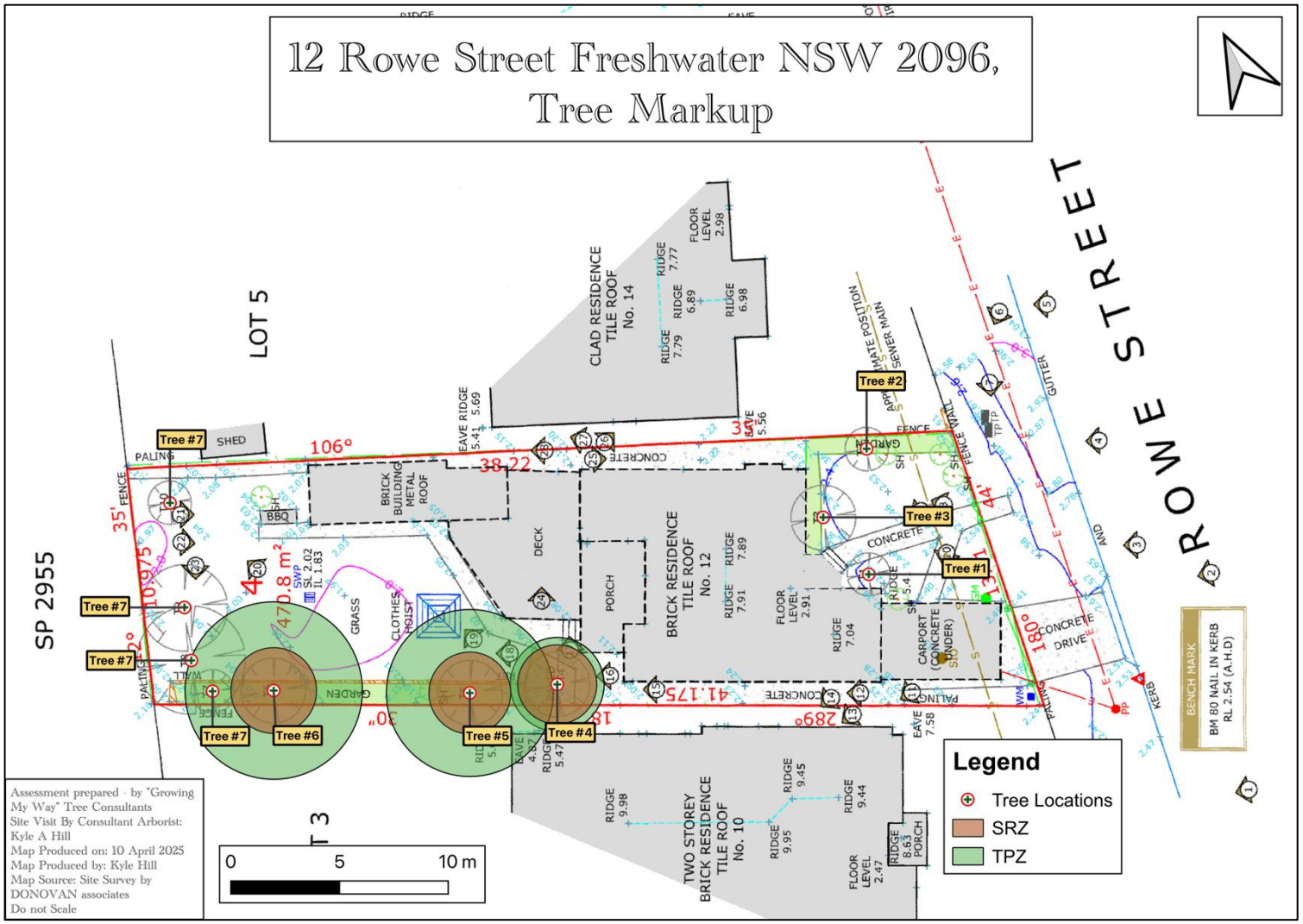


FIGURE 5: NUMBER AND LOCATION OF THE TREES ON SUBJECT SITE. (BY QGIS)

4.2 The Proposal

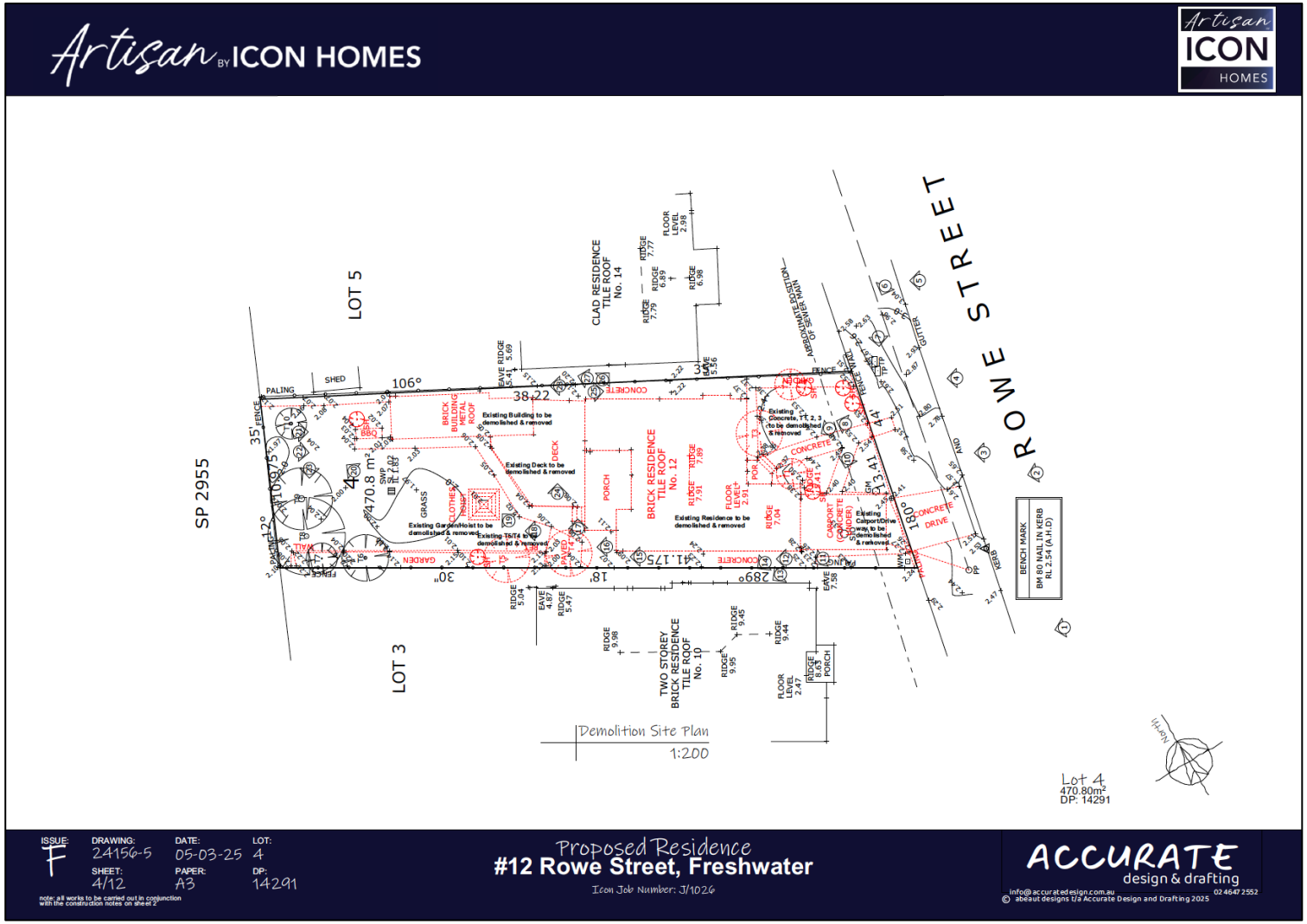


FIGURE 6: PROPOSED DEMOLITION SITE PLAN

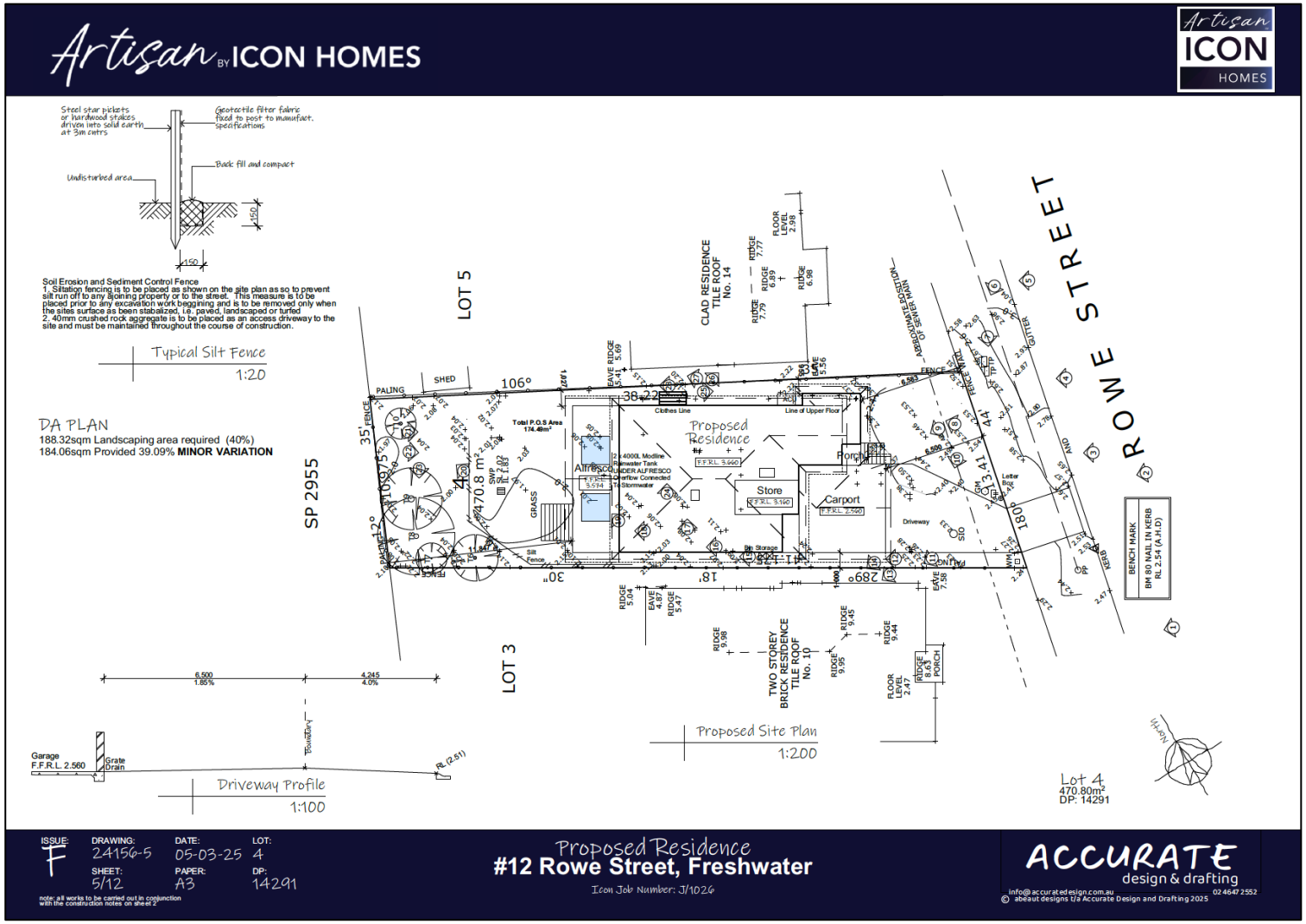


FIGURE 7: PROPOSED SITE PLAN

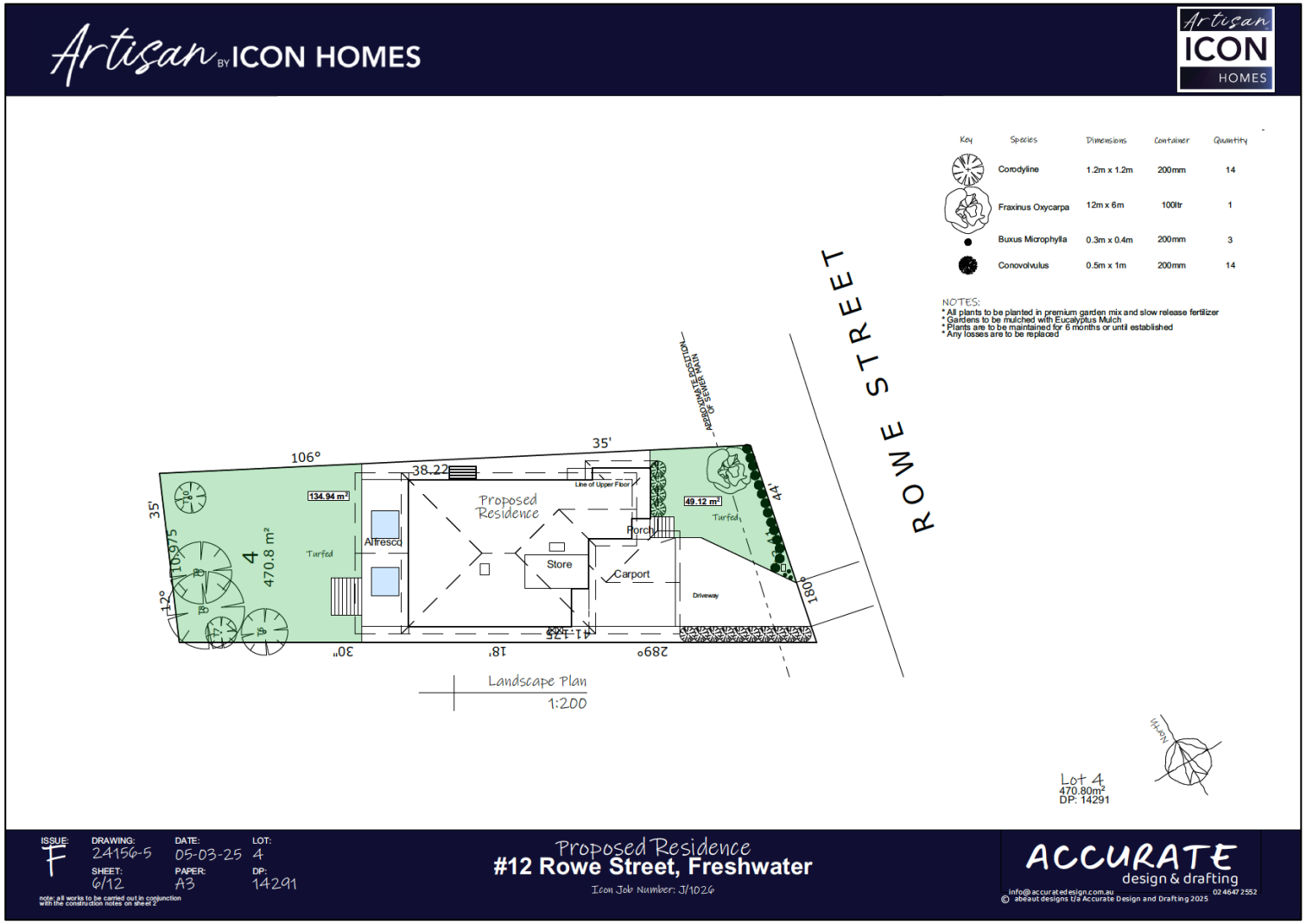


FIGURE 8: PROPOSED LANDSCAPE PLAN

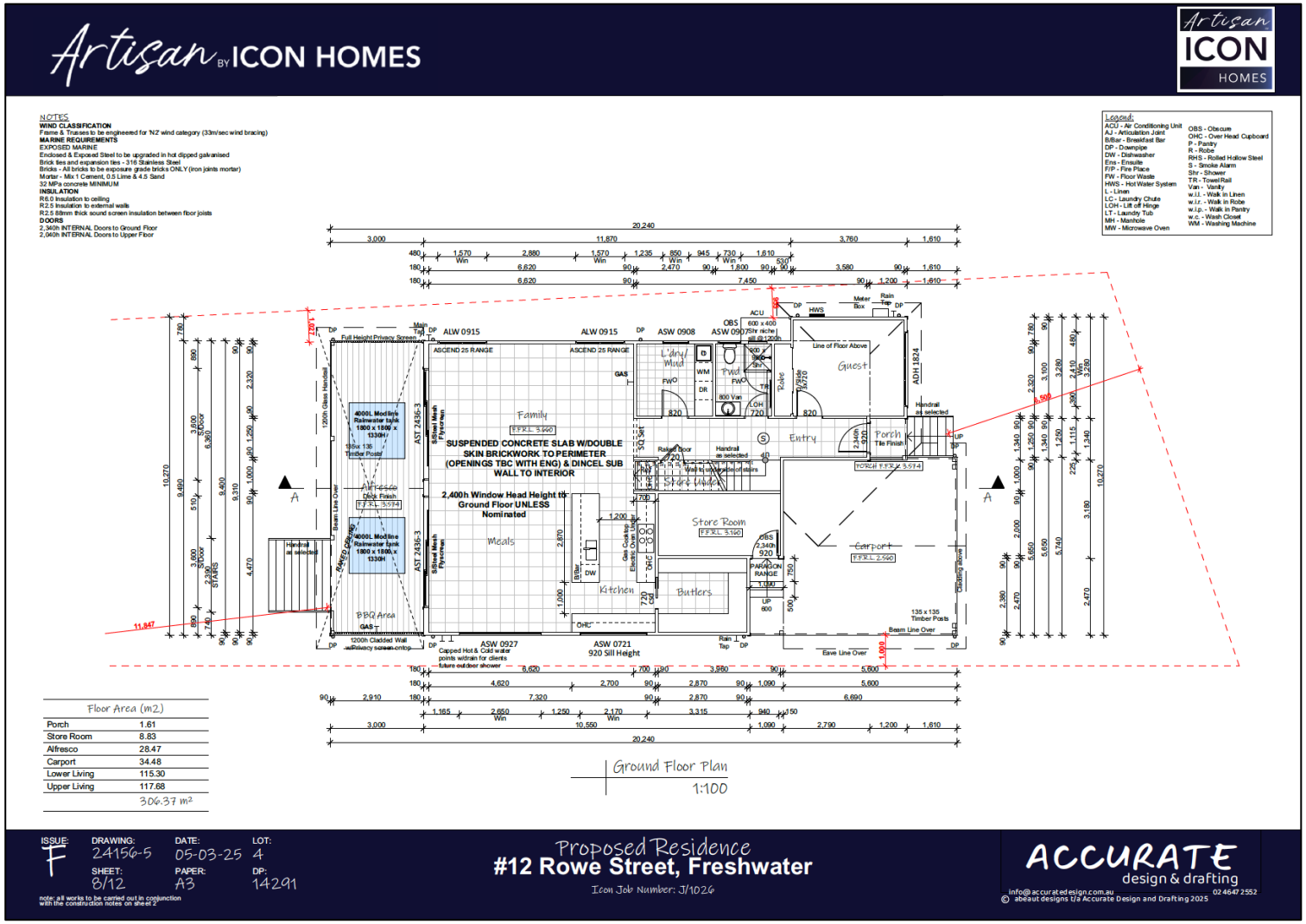


FIGURE 9: PROPOSED GROUND FLOOR PLAN

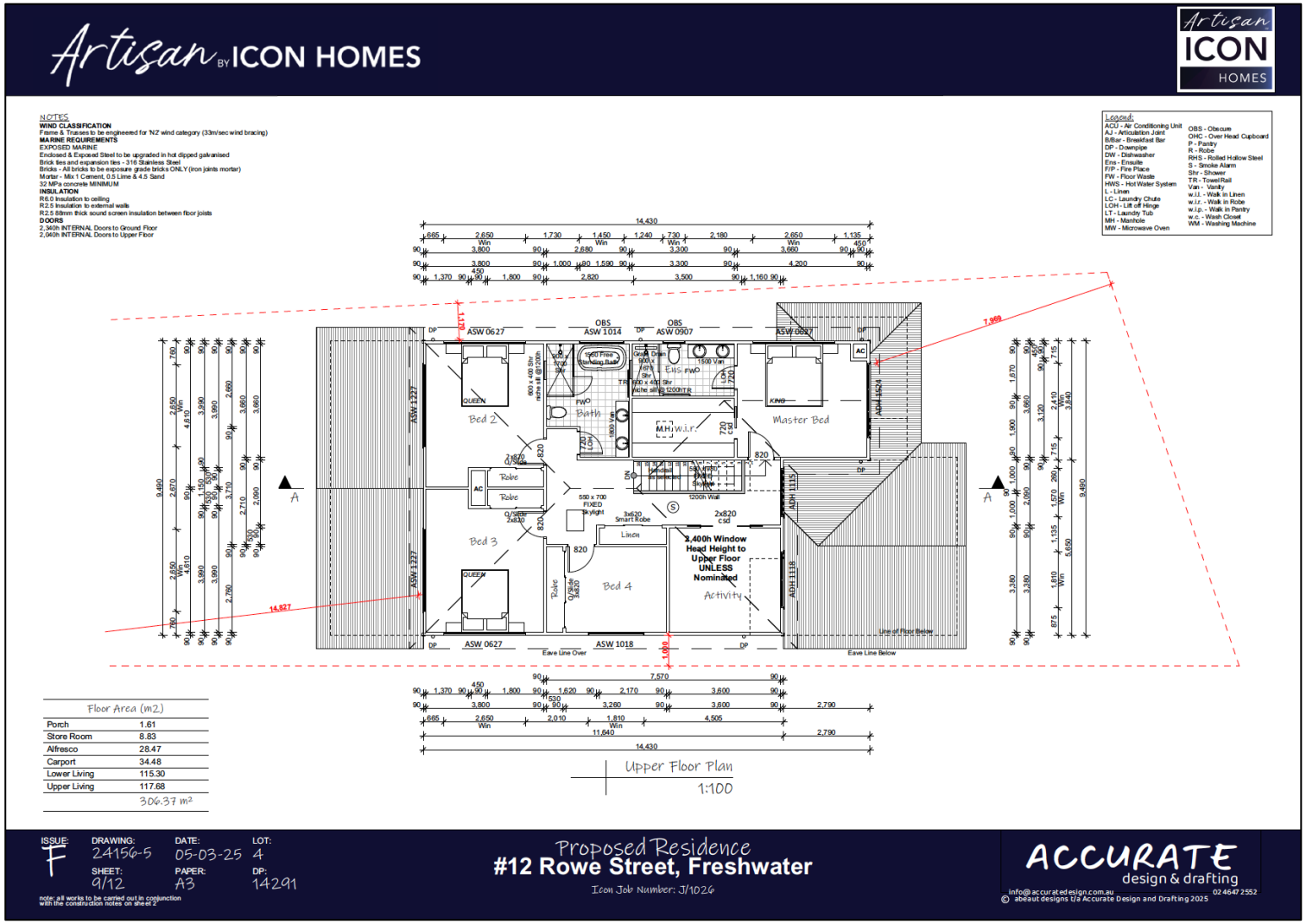


FIGURE 10: PROPOSED UPPER FLOOR PLAN

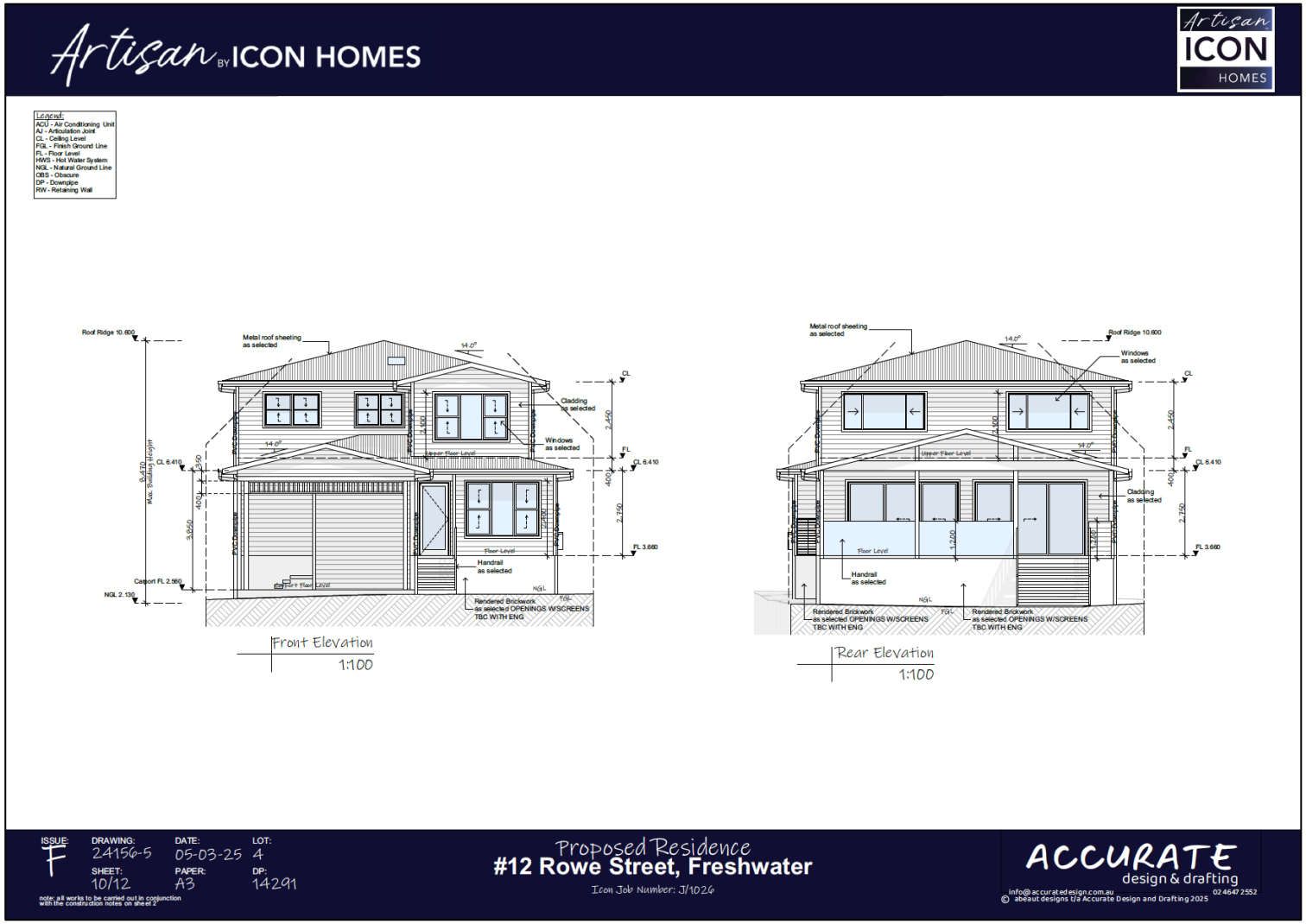


FIGURE 11: PROPOSED FROUNT AND REAR ELEVATIONS

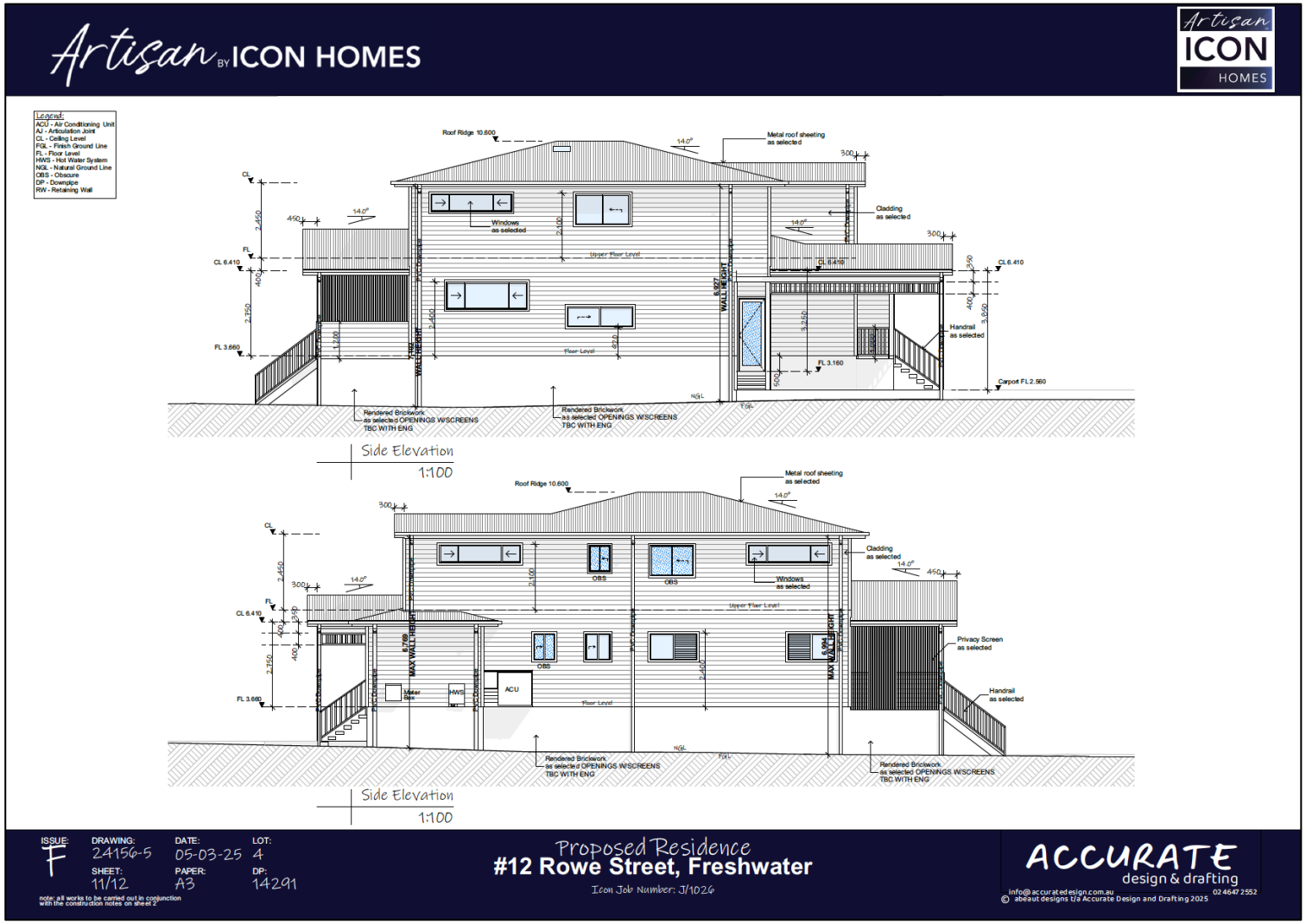


FIGURE 12: PROPOSED SIDE ELEVATIONS

4.3 The Trees – Summary Table

Read this table in conjunction with Appendix A– Common Arboreal Terms

Trees Recommended for removal							Trees Recommended for retention					
Exempt species							Trees retainable but of low amenity/significance					
#	**Identification**	**Height (m)**	**Crown (m)**	**DBH (m)**	**DRC (Base) (m)**	**TPZ (m)**	**SRZ (m)**	**Age**	**Health/Vigour**	**Structure / Retention value**	**Form/Habit**	**Comments**
1	***Ceratopetalum gummiferum*** (NSW Christmas Tree)	<3.00	<2.50	0.09	0.11	N/A	N/A	N/A	Poor to Fair & Poor to Fair	Moderate & Low	Typical	**EXEMPT:** Tree #1 is less than 5.00 meters in height, it is exempt (by size) refer to NBC DCP.
2	***Pittosporum rhombifolium*** (Native Daphne)	<5.00	<2.50	0.16	0.18	N/A	N/A	N/A	Poor to Fair & Poor to Fair	Low & Low	Typical	**EXEMPT:** Tree #2 is less than 5.00 meters in height, it is exempt (by size) refer to NBC DCP.
3	***Camellia japonica*** (Japanese Camellia)	<2.50	<4.50	0.15	0.17	N/A	N/A	N/A	Good & Good	Moderate & Moderate	Typical	**EXEMPT:** Tree #3 is less than 5.00 meters in height, it is exempt (by size) refer to NBC DCP.
4	***Callistemon viminalis*** (Weeping Bottlebrush)	<5.50	<4.50	0.18	0.24	2.16	1.82	M	Fair & Fair	Moderate & Moderate	Typical	**REPLACE:** Proposed works significantly breach the Tree #4 TPZ & SRZ.

#	Identification	Height (m)	Crown (m)	DBH (m)	DRC (Base) (m)	TPZ (m)	SRZ (m)	Age	Health/Vigour	Structure / Retention value	Form/Habit	Comments
5	***Ficus* spp.**	<5.50	<5.00	0.32	0.26	3.84	1.88	M	Good & Good	Moderate & Moderate	Typical	**EXEMPT:** Tree #5 it is exempt by species refer to NBC DCP.
6	***Ficus* spp.**	<5.50	<5.00	0.34	0.29	4.08	1.97	M	Good & Good	Moderate & Moderate	Typical	**EXEMPT:** Tree #6 it is exempt by species refer to NBC DCP.
7	**Group of trees** ***Ficus* spp. x1** ***Syzygium* spp. x1** ***Magnolia* spp. x1** ***Cupressus* spp. x1**	N/A	N/A	N/A	N/A	N/A	N/A	M	Good & Good (Magnolia is in poor health at time of inspection)	Moderate & Moderate	Typical	**RETAIN, PROTECT & MANAGE:** Install temporary metal meshed fencing with ground level support as a group. Manual excavation within TPZ radial distance is specified.

4.4 Tree & Site Images

(Photographs taken on Saturday, 5 April 2025 (iPhone 14)

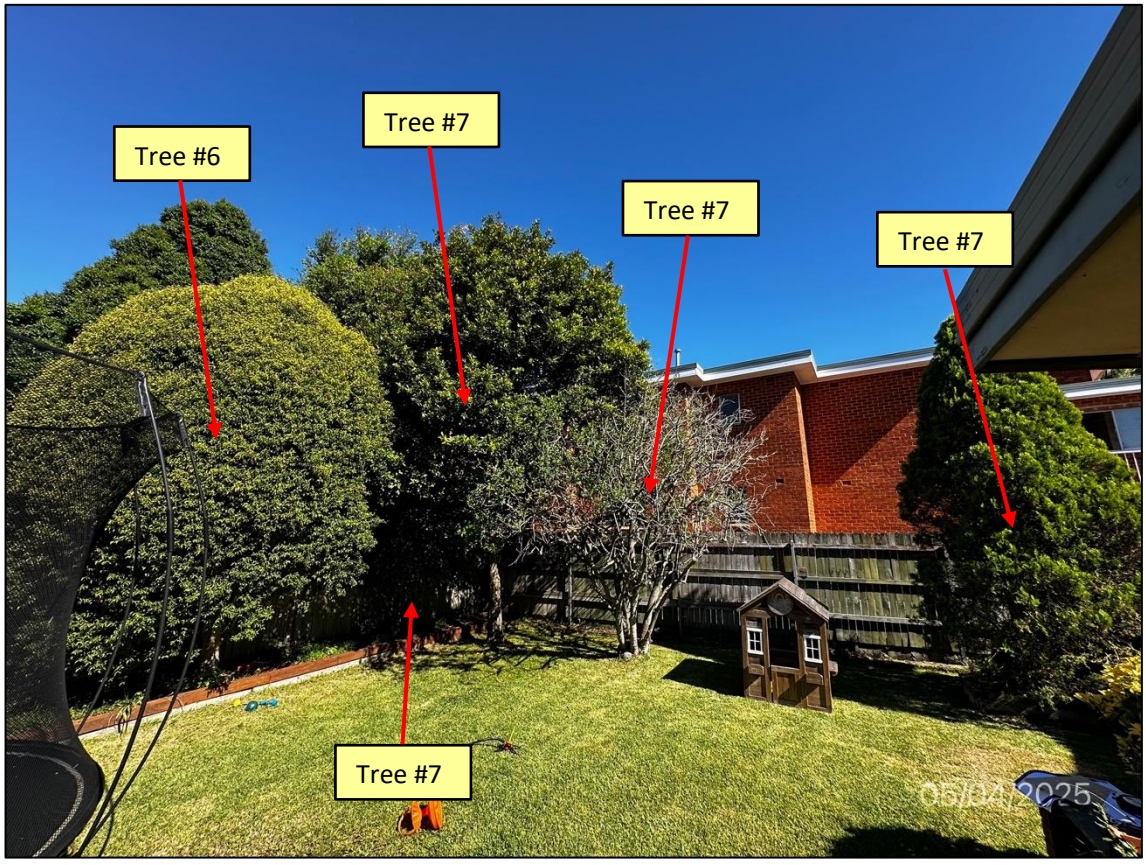


FIGURE 13: ABOVE & PREVIOUS PAGE PHOTOGRAPHS ILLUSTRATES THE SEVEN (7) DISCUSSED TREES LOCATIONS & SITE FEATURES

5. Discussion

5.1General Discussion /Tree Environments:

Below details the seven (7) trees including one (1) group of trees discussed in this report.

Tree #1: *Ceratopetalum gummiferum* (NSW Christmas Tree)

Tree #1 is located within the subject site front yard.

Tree #1 is less than 5.00 meters in height, as such, it is exempt from the NBC tree management provisions.

Tree #2: *Pittosporum rhombifolium* (Native Daphne)

Tree #2 is located within the subject site front yard.

Tree #2 is less than 5.00 meters in height, as such, it is exempt from the NBC tree management provisions.

Tree #3: *Camellia japonica* (Japanese Camellia)

Tree #3 is located within the subject site front yard.

Tree #3 is less than 5.00 meters in height, as such, it is exempt from the NBC tree management provisions.

Tree #4: *Callistemon viminalis* (Weeping Bottlebrush)

Tree #4 is located within the subject site rear yard adjacent to south long boundary. The proposed new work is confirmed to significantly breach the TPZ & SRZ total surface area significantly for #4.

By our calculation, the total TPZ surface area of Tree #4 is 14.65m^2. The proposed works equate to an approximate 7.09m^2 mathematical disturbance of total TPZ surface area for Tree #4. This equates to an approximate 48.4%of total TPZ surface area, (defined by *AS4970-2009 as a Major Encroachment*).

As the Total TPZ surface area is breached by almost 50%, we suggest the total replacement of the tree is the most satisfactory 'big picture' strategy able to be specified/supported.

The new tree/s are specified be planted as far from any permanent existing (neighbours) & new lot infrastructure as possible.

The replacement tree/s must be sourced from a grower/supplier whose stock is certified to meet the production benchmarks as described within the *Australian Standard (AS2303- 2015 Tree stock for landscape use)*.

Required new replacement tree/s are to be professionally planted & and maintained for at least a minimum full Sydney active growing season. defined as being from mid-August through late May.

Tree #5: *Ficus* spp.

Tree #5 is located within the subject site rear yard adjacent to south long boundary.

Tree #5 is assessed by species as being exempt from the NBC tree management provisions.

Tree #6: *Ficus* spp.

Tree #6 is located within the subject site rear yard adjacent to south long boundary.

Tree #6 is is exempt species from the NBC tree management provisions.

Tree #7: Group vegetations: *Ficus* spp., *Syzygium* spp., *Magnolia figo* & *Cupressus* spp.

Trees #7 are a group of protected trees located within the subject site rear yard adjacent to rear boundary.

During the development works, the existing garden bed edge infrastructure located near the trees must be demolished manually to avoid damage to the tree's root system. (see page 25 diagram). The reason being, mechanical demolition has a high risk 'live root' disturbance, which at worst can compromise any tree's health, stability, and structural integrity.

Magnolia figo is in poor health & vigour during inspection.

On this basis, Tree #7 is additional specified to install for 'Metal Mesh Fencing Panels with above ground supports' (retain existing boundary diving fence) within TPZ radial distance during construction phase.

In our opinion, this tree can be viably retained with minimal management.

NBC policy when trees have been approved to be replaced by impacts for proposed works, is to replace those trees with new trees that at maturity will equal & preferably exceed the existing 'green footprint' previously provided (when in good health & vigour) by the discussed in detail.

In our opinion, there is ample room for a new tree/s to be planted & successfully established relative to providing potentially up to long term landscape & visual amenity within the front yard of the subject site. Applying this methodology will replicate the existing 'green footprint' assessed as being required to be replaced.

New trees are specified to be sourced from growers/suppliers whose stock is certified to meet the production benchmarks of the Australian Standard (AS23023-2015 Tree stock for landscape use). New trees are to be professionally planted & managed for a minimum of one coastal Sydney growing season (late August through early June).

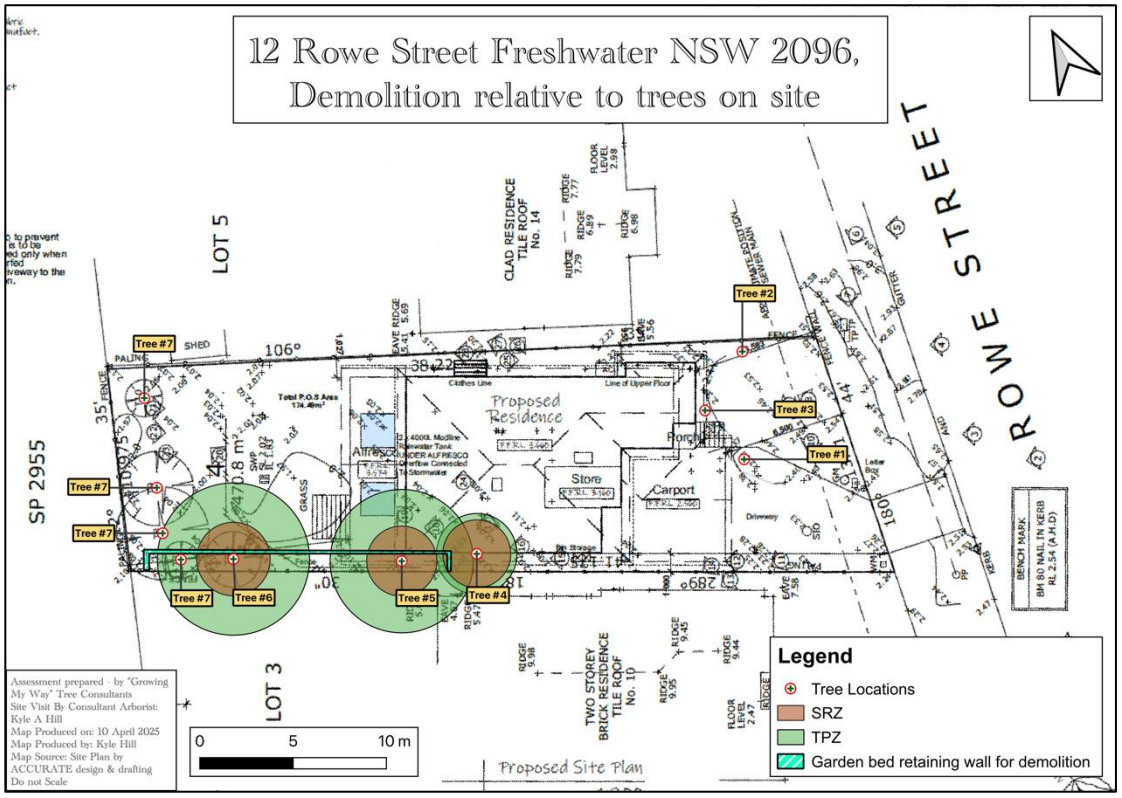
Tree removal can only be undertaken by suitably qualified practitioners (or those always supervised/instructed by such a person) in compliance with the provisions within the WorkSafe NSW, (old WorkCover *NSW*) "*Amenity Tree Industry – Code of Practice 1998*".

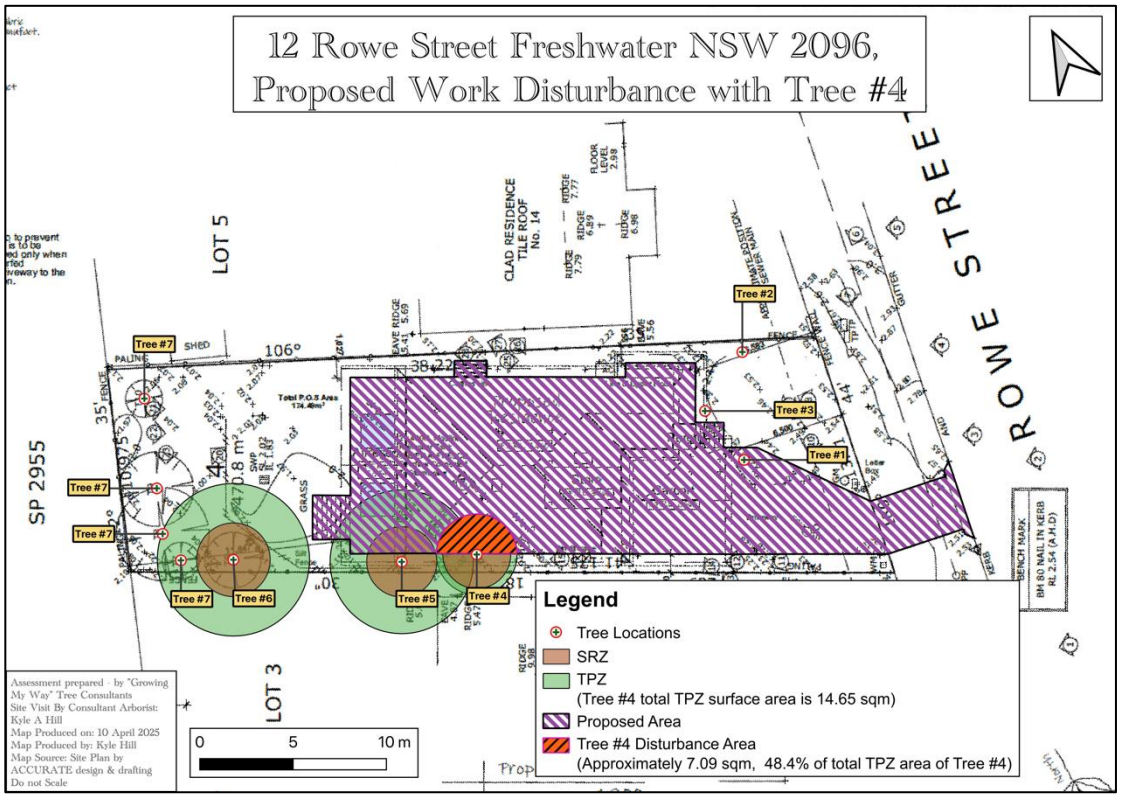
See the below potentially suitable to the subject site tree species list is provided within this document. (The list includes both Exotic & Australian Native species. It is not necessarily the only species potentially chosen/specified for the subject site. We additionally, acknowledge that species availability may have an impact on the preferred chosen species.)

- *Backhousia citriodora* (Lemon Scent Myrtle)
- *Banksia integrifolia* (Coast Banksia)
- *Banksia serrata* (Old Man Banksia)
- *Melaleuca linariifolia* (Snow in Summer)
- *Murraya paniculata (Orange Jessimine)*
- *Michelia champaca* (Himalayan Magnolia)
- *Tristaniopsis laurina* 'Luscious'™ (Watergum Cultivated Variety)

- *Waterhausea floribunda* 'Green Avenue'™ (Weeping Lilly Pilly)

5.2 TPZ / SRZ Tree Disturbance Calculation Diagrams





5.3 Preliminary Site Specific "Tree Plan of Management"

Pre-Commencement of Works

- *Establish builder's common boundary fencing to establish isolation for all discussed as able to be retained in a viable manner trees.*
- *Install 'temporary metal mesh fencing panels with above ground supports' for Tree #6 & Trees #7 (as group), separation from the proposed construction.*
- *Remove/Replace Tree #1, Tree #2, Tree #3, Tree #4 & Tree #5.*
- *TPZ installations (specified & existing) must be 'signed off' as being AS4970-2009 compliant. This requires documentation to be in writing with supporting photographic evidence. This document must be provided to the appointed Principle Certifying Authority.*

Commencement of and During Works

- *Ensure common boundary isolation fencing is always intact.*
- *Any demolition of existing infrastructure within any retained, managed & protected tree TPZ radial distance is to be completed manually, especially when 'live roots' of a significant diameter belonging to any retained trees may be exposed. Any exposed 'live root' of a significant diameter must be covered until the required input & documentation from the retained Project Arborist can be obtained. Preferably, any 'live root' exposed would be covered in subject site topsoil. If this is not practicable, hessian or geotextile matting kept moist can be used until able to be covered & isolated from the proposed works.*
- *In the event of any significant diameter 'live root' being exposed, only the retained Project Arborist can determine, supervise & document with supporting evidence photographs the as close to best Arboriculture Practice strategy applied.*

Post Completion of Works

- *Confirm the presence & condition of all required by the DA determination 'Conditions of Consent' individual trees required to be retained.*
- *The above is to be certified in writing with supporting photographic evidence as being DA determination 'Conditions of Consent' plus AS4970-2009 provisions compliant relative to all required to be retained trees.*
- *All documentation from each stage of works must be provided to the appointed Principle Certifying Authority as soon as is reasonably possible post each stage of works being completed.*

New Tree Generic Specifications:

- *Replacement trees are to be sourced from growers/suppliers whose stock meets the production benchmarks of the Australian Standard (AS2303.2015 Tree stock for landscape use) or NATSPEC specification to produce quality container produced trees.*
- *New tree specimens are to be professionally planted & maintained for a minimum period of six (6) months once installed.*
- *New tree specimens are to be 45 litre container stock as the local environment has only shallow topsoil on top of sandstone bedrock. (A lack of natural topsoil depth may dictate smaller container replacement trees to be more appropriate.*

6. Conclusions

The proposal in its present format is considered as able to be supported (from a tree management perspective).

Our specified replacement trees must at maturity, at least replicate the 'loss of green footprint' provided by trees supported to be replaced.

This submission in its present format can be submitted to the NBC for review by council officers.

If you have any questions relating to this report or implementation of recommendations, please contact Kyle Hill on 0412-221-962.

Yours faithfully,

Kyle A. Hill (AQF level 5 & 8 Practicing & Consulting Arborist)

7. Limitations on the use of this report

This report is to be utilised in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or a copy) is referenced in, & directly attached to that submission, report or presentation.

8. Assumptions

Care has been taken to obtain information from reliable resources. All data has been verified insofar as possible; however, Growing My Way Tree Services, can neither guarantee nor be responsible for the accuracy of information provided by others.

Unless stated otherwise:

Information contained in this report covers only the trees that were examined & reflects the condition of the trees at the time of inspection.

The inspection was limited to visual examination of the subject trees without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

9. Recommended References

Barrell, J. 1993. '*Preplanning Tree Surveys: Safe Useful Life Expectancy (SULE) is the Natural Progression*', Arboricultural Journal 17:1, February 1993, pp.

Barrell, J. 1995, '*Pre-development Tree Assessments'*, in Trees & Building Sites, Proceedings of n International Conference Held in the Interest of Developing a Scientific Basis for Managing Trees in Proximity to Buildings, International Society of Arboriculture, Illinois

Dr. G. Watson & Dr. D. Neely, '*Trees & Building Sites',* LSA Illinois USA 1995

Dr. N. Matheny & Dr. J.R. Clark, '*Trees & Development',* ISA Illinois USA 1998

Phillip J. Craul, '*Urban Soil in Landscape Design',* J. Wiley & Sons, New York USA 1992

10. Selected Bibliography

Hitchmough, J.D. 1994. '*Urban Landscape Management*', Inkata Press, Sydney.

Mattheck, C. & Breloar, H. 1994 '*Body Language of Trees'*, The Stationery Office, London.

AS 4373:2007, '*Pruning of Amenity Trees'*, Standards Australia.

AS 4970:2009, 'Protection of Trees on Development Sites'', Standards Australia.

BS 5837:2005, '*Guide for Trees in Relation to Construction'*, Standards Board, UK.

Appendix A – Glossary

Glossary of common Arboreal terms

Age: **I** *Immature* refers to a refers to a well-established but juvenile tree

SM *Semi-mature* refers to a tree at growth stages between immaturity & full size

M *Mature* refers to a full sized tree with some capacity for further growth

LM *Late Mature* refers to a full sized tree with little capacity for growth that is not yet about to enter decline

OM *Over-mature* refers to a tree about to enter decline or already declining

LS *Live Stag* refers to a tree in a significant state of decline. This is the last life stage of a tree prior to death

Hth & Vig Health & Vigour

Health refers to the tree's form & growth habit, as modified by its environment (aspect, suppression by other tree, soils) & the state of the scaffold (ie. trunk & major branches), including structural defects such as cavities, crooked trunks or weak trunk/branch junctions. These are not directly connected with health & it is possible for a tree to be healthy but in poor condition/vigour. **Classes are:**

Excellent (E), V. Good (VG), Good (G), Fair (F), Declining (D), Poor (P), Very Poor (VP)

Vigour refers to the tree's growth rate/condition as exhibited by the crown density, leaf colour, presence of epicormic shoots, ability to withstand disease invasion & the degree of dieback. **Classes are:**

Excellent (E), V. Good (VG), Good (G), Fair (F), Declining (D), Poor (P), Very Poor (VP)

Useful Life Expectancy (ULE) refers to any individual tree specimen's potential life

expectancy (viability) based on VTA assessment, three groups are described,

Short = Less than Five years

Medium = Five–Fifteen years

Long = more than Fifteen years

Significant diameter roots are defined as those being greater than 0.05m/50mm in diameter.

Diameter at Breast Height (DBH) refers to the tree trunk diameter at breast height (1.4 metres above ground level)

Structural Root Zone (SRZ) refers to a radial offset which relates to tree stability. This zone is presumed to be main location of the tree's structural support roots. It is calculated using the formula *SRZ radius= (D x 50)$^{0.42}$ x 0.64.*

Primary Root Zone (PRZ) refers to a radial offset of ten (10) times the trunk DBH measured from the centre of the trunk. This zone often contains a significant amount of (but by no means all of a tree's) fine, non-woody roots required for uptake of nutrients, oxygen & water.

Tree Protection Zone (TPZ) is ideally a "No Go Zone" surrounding a tree to aid in its ability to cope with disturbances associated with construction works. **TPZ = DBH x 12**. Tree protection involves minimising root damage that is caused by activities such as construction. Tree protection also reduces the chance of a tree's decline in health or death & the possibly damage to structural stability of the tree from root damage.

To limit damage to the tree, protection within a specified distance of the tree's trunk must be maintained throughout the proposed development works. No excavation, stockpiling of building materials or the use of machinery is permitted within the TPZ.

A TPZ is required for each tree or group of trees within five metres (unless otherwise specified) of building envelopes.

Stem/bark inclusion refers to a genetic fault in the tree's structure. This fault is located at the point where the stems/branches meet. In the case of an inclusion this point of attachment is potentially weak due to bark obstructing healthy tissue from joining together to strengthen the joint.

Decay refers to the break down tissues within the tree. There are numerous types of decay that affect different types of tissues, spread at different rates & have different effect on both the tree's health & structural integrity.

Point of Attachment refers to the point at which a stem/branch etc join.

Dead wood refers to any whole limb that no longer contains living tissues (eg live leaves &/or bark). Some dead wood is common in a number of tree species.

Die back refers to the death of growth tips/shoots & partial limbs. Die back is often an indicator of stress & tree health.

One dimensional crown refers to branching habits & leaves that extend/grow in One direction only. There are many causes for this growth habit such as competition & pruning.

Crown Foliage Density of Potential (CFDP) refers to the density of a tree's crown in relation to the expected density of a healthy specimen of the same species. CFDP is measured as a percentage.

Epicormic growth/shoots refers to growth/shoots that are/have sprouted from axillary buds within the bark. Epicormic growth/shoots are a survival mechanism that often indicates the presence of a current or past stress even such as fire, pruning, drought etc.

Over Head Powerlines (OHP) Over head electricity wiring.

LVOHP Low Voltage Over head Powerlines

HVOHP High Voltage Over head Powerlines

ABC Aerial Bundled Cable

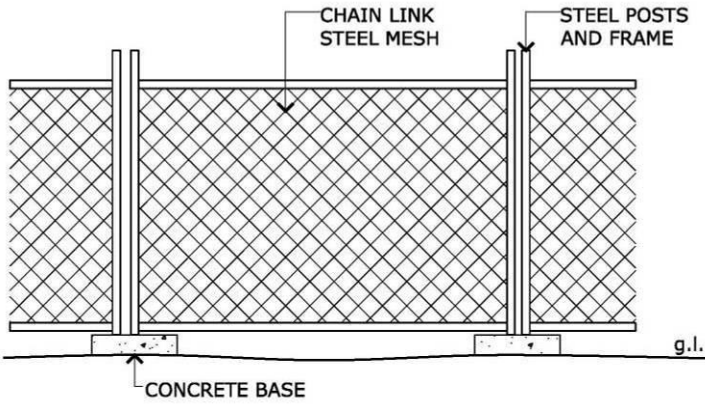
Attachment A: Tree Protection/Management Prior to & During Construction

The installation of Tree Protection Zone (TPZ) fencing is to be carried out prior to commencement of all works. The most suitable fencing material is 1.8m tall chain link mesh with 50mm metal pole supports, see **detail 1: tree protection fencing**.

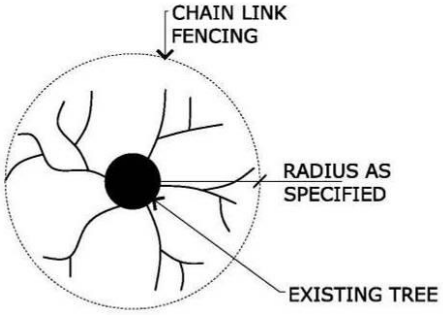
A mulch layer of composted leaf & woodchip to a depth of 75mm is required within the TPZ to aid in retention of soil moisture & to protect soil from contaminants. Water is to be applied by handheld or soaker/leaky hose within TPZ as required & in Accordance with Stage 3 Water Restrictions. Watering is to be carried out by either an Arborist or is to form part of the Builder's/Contractor's contract, with recommended monthly checks by an Arborist.

There is to be no stock piling of building material (including waste), machinery or any other item within TPZ of any retained tree. Access to personnel & machinery, & storage of fuel, chemicals, cement or site sheds is prohibited.

Regular monitoring of protected trees during development works for unforeseen changes or decline, will aid in the success & longevity of the retained trees.



ELEVATION



PLAN